



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,869	10/30/2003	Venkat K. Raghavendran	3813	9106

22474 7590 10/18/2007
CLEMENTS WALKER
1901 ROXBOROUGH ROAD
SUITE 300
CHARLOTTE, NC 28211

EXAMINER

GRAY, JILL M

ART UNIT	PAPER NUMBER
----------	--------------

1794

MAIL DATE	DELIVERY MODE
-----------	---------------

10/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Amendment

The rejection of claims 1, 7, 10, 12-14, 43 and 47 under 35 U.S.C. 112, second paragraph is moot in view of applicants' amendments.

Claim Objections

1. Claim 8 is objected to because of the following informalities: Claim 8 appears to have a word omitted. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-14, 26, 29-32, 34-36, and 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kin 4,983,247 in view of Winckler et al., US 6,369,157 B1 (Winckler), for reasons of record.

Kim discloses in Figure 1; a composition of a fiber reinforced laminate material comprising a fiber reinforced composite having a resin rich surface layer, as required by claim 1, wherein said composite can be used in the formation of molded articles such as car hoods, doors and panels. See column 2, lines 40-50, column 3, lines 11-18, and Figure 1. In addition, Kim discloses that the reinforced fiber layer is a glass mat and that a variety of polymer matrices may be used such as polycarbonate or polyester, further disclosing that the resin forming layer (resin rich layer) is the same resin as used in the fiber reinforced body or a resin that is compatible with said body. This disclosure would render obvious the limitations as set forth in present claims 7-11, 26 and 29. See

Art Unit: 1794

column 3, lines 28-40. Furthermore, Kim discloses that fillers of the type contemplated by applicants, such as pigments can be included in the surface layer, per claim 12, and that the glass fibers can be present in an amount within applicants' range as set forth in claim 42. See column 5, lines 7-10 and column 7, line 68:

Kim does not specifically teach that the polymeric matrix is a polymerizable component comprised of a macrocyclic oligoester.

Winckler teaches a blend of a macrocyclic polyester oligomer and a polymerization catalyst (per claims 4-6) that is used in the formation of prepegs, which are used to form plastic composite articles such as automotive body panels. See abstract, and column 19, lines 9-11. In addition, Winckler teaches that his macrocyclic polyester oligomer is of the type set forth by applicants in claims 34-35 and 39, such as 1,4-butylene terephthalate. See column 5, lines 1-10. Also, Winckler teaches that a filler can be added as required by claims 13 and 14. See column 10, lines 15-19. Winckler further teaches that his prepegs are formed by infusing or impregnating the macrocyclic polyester oligomer blend into a dry fibrous substrate layer. See columns 13-17.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form a fiber reinforced laminate whereby the resin rich layer and glass mat polymer matrix are formed from the same material and that material being a polyester, as disclosed by Kim. Though Kim is silent as to the specific polyester material, it would have been obvious to modify the teachings of Kim by using a polyester such as a macrocyclic polyester oligomer blended with a polymerization

Art Unit: 1794

catalyst as taught by Winckler, motivated by the ability to reduce processing time and energy consumption during the molding process because said macrocyclic polyester oligomers have favorable crystallization rates. Accordingly, claims 2-3, 30-31, and 40, would have been obviated by the aforementioned teachings.

As to claim 32, Winckler teaches that various titanates can be used as the catalyst in his polymerization process, though not specifically teaching the instant claimed titanate ester. It is the position of the examiner that the selection of a specific titanate polymerization catalyst from among many, being selected for its art recognized purpose is no more than a preferential selection of a known catalyst to be used in its known function. Therefore, in the absence of factual evidence on this record of unexpected or superior properties of the resultant fiber reinforced laminate, said properties being directly related to the instant claimed catalyst, this limitation is not construed to be a matter of invention.

Regarding claim 36, Kim discloses that polycarbonate cyclic polymers are sprinkled on the mold resulting in a composite sheet layer covered with said melted powders. Clearly this teaching provides a suggestion for the inclusion of polycarbonate. Note column 8, lines 29-43.

Regarding claim 38, it would have been an obvious expedient to the skilled artisan at the time the invention was made to select and determine a polycarbonate of optimal MFI during routine experimentation. It has long been held that discovery of an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F2d 272, 205, USPQ 215 (CCPA 1980).

Regarding claim 41, Winckler does not specifically teach that the amount of his catalyst is present in the instant claimed range. Nonetheless, it is the position of the examiner that since the result sought and the ingredients used were known, it was within the expected skills of one having ordinary skill in this art to arrive at the optimum proportion of those ingredients. *In re Reese*, 129, USPQ 402 (CCPA 1961).

As to claims 43-54, Winckler teaches the formation of multi-layered laminates as required by claims 43 and 47. This teaching would have provided a suggestion to the skilled artisan for the formation of a fiber reinforced laminate material of the type contemplated by applicants. Claims 44-46 and 48-54 would have been obvious over the combined teachings of Kim and Winckler for reasons mentioned above in the preceding paragraphs.

Therefore, the combined teachings of Kim and Winckler would have rendered obvious the invention as claimed in present claims 1-14, 26, 29-32, 34-36, and 38-54.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

Art Unit: 1794

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-9, 13, 30-31, 34-37, 43 and 47 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5, 9-16, and 19-23 of copending Application No. 11/141,238. Although the conflicting claims are not identical, they are not patentably distinct from each other because the language of "comprising" in the copending claims does not exclude the layer of thermoplastic resin of the present invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

2. Applicant's arguments filed August 3, 2007 have been fully considered but they are not persuasive.

Applicants argue that Kim is utterly devoid of any teaching of "a composition of a fiber reinforced laminate material comprising a fiber reinforced composite having a resin rich surface layer, as required by claim 1, wherein said composite can be used in the formation of molded articles such as car hoods, doors and panels." Applicants further argue that the cited portions of Kim and Figure 1 fails to disclose and/or teach what the examiner has suggested, and that Kim and Winckler are utterly devoid of any teaching that the surface layer of the formed composite is substantially fiber free, as now claimed in base claims 1, 43, and 47.

In this regard, Kim teaches that it is known in the art to use fiber reinforced laminates having a Class A surface in the formation of automobile parts such as car hoods, doors and panels. Note column 1, lines 37-46. This teaching would have provided motivation to use the fiber reinforced laminates of Kim as such. That being said, Figure 1 of Kim discloses a fiber reinforced laminate material comprising a layer of reinforcing fibers and a matrix material and a layer of thermoplastic resin, wherein the surface of the composite is substantially fiber free as required by present claims 1, 43 and 47. Note also column 3, lines 11-47. Clearly the disclosure of Kim in combination with the teachings of Winckler would have rendered obvious the instant claimed invention.

Regarding the double patenting rejection, applicants argue that because the copending application is a continuation-in-part of and claims priority from the present application, no timewise extension is possible and since the present application is the parent of the cited application, no terminal disclaimer is believed necessary.

In this concern, continuation applications are not prohibited from double patenting rejections unless said continuation is a divisional filed in response to a restriction requirement. Note MPEP 804.01

No claims are allowed.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1794

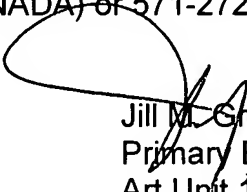
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton I. Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jill M. Gray
Primary Examiner
Art Unit 1794

jmg